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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,626	09/08/2003	Tukaram K. Hatwar	86277ARLO	9452

7590 12/14/2004  
Thomas H. Close  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/657,626	HATWAR, TUKARAM K. <span style="float: right;">72</span>	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dawn Garrett	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17,26,47 and 65 is/are rejected.
- 7) ☒ Claim(s) 1-65 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12-8-03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is requested to update the status of all U.S. applications listed in the specification by amendment.

### ***Claim Objections***

2. Claims 1-65 are objected to because of the following informalities:
  3. It is suggested that "a spaced anode and cathode" be changed to "an anode and a cathode spaced apart from one another" in each of claims 1, 15, 32, and 48.
  4. It is suggested "dopants" be changed to "dopant" in each of claims 13, 30, 46, and 63.
  5. In each of claims 12, 29, 45, and 62 the word "and" prior to the last chemical formula should be changed to "or".
  6. The extra period at the end of claim 15 should be deleted.
- Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claims 17, 26, 47, and 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Claim 17 recites a device "further including at least two electron-transporting layers". Claim 15, upon which claim 17 depends, already provides for multiple electron-transporting layers. It is not clear if the electron transporting layers of claim 17 are the same or different from

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the electron-transporting layer(s) of part (e) in claim 15. Clarification and/or correction are required.

10. Claim 26 is considered indefinite, because claim 15 does not recite an undoped electron-transporting layer.

11. Additionally in claim 26, it is not clear if the thickness recited in claim 26 is for each of a doped and undoped electron-transporting layer or if the combination of a doped and undoped electron-transporting layer is between 5 nm to 100 nm.

12. In claim 47 it is not clear if the hole-transporting layer is the first hole transporting layer, the second transporting layer, both of the first hole transporting layer and the second hole transporting layer or the sum of both the first and second hole transporting layers.

13. Claim 65 recites a device "further including at least two electron-transporting layers". Claim 48, upon which claim 65 depends, already provides for multiple electron-transporting layers. It is not clear if the electron transporting layers of claim 65 are the same or different from the electron-transporting layer(s) of part (f) in claim 48. Clarification and/or correction are required.

***Allowable Subject Matter***

14. Claims 1-16, 18-25, and 48-64 contain allowable subject matter (it is noted that claims 1, 12, 13, 15, 29, 30, 32, 45, 48, 62, and 63 are objected to because of the previously indicated informalities). Claims 17, 26, 47 and 65 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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The closest prior art is considered to be Kim et al. (US 6,614,176), which teaches organic electroluminescent devices with a plurality of light emitting layers. The devices may comprise layers doped with rubrene (yellow colored) and perylene (blue colored) (see col. 4). The devices comprise an anode, hole injecting layer, hole transporting layer, light emitting layers, electron transport layer, and cathode (see Kim et al. claims 1 and 12). The Kim et al. device differs from the instant claims in that a light emitting layer comprising an electron transporting material and yellow emitting dopant is not taught or rendered obvious.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

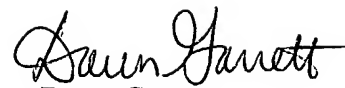
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in cursive script, reading "Dawn Garrett".

Dawn Garrett

Primary Examiner

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D.G.

December 10, 2004